

Technical Data Sheet

Ref.: C&L-MY-25- 010422-01

<p>In Compliance with EN norms - RG (Reactive Grouts)</p> <p>Main application 2 component Metapoxy Grout for filling of tiles & stone joints upto 15 mm on floor and on wall.</p>	<p>Walnut Connect & Lock advance technology Metapoxy Grout is consisting of high-quality transparent glass beads, eco-friendly resin & hardener and high-quality stable color pigment. The grout provides excellent workability and ease of work for DIY job and high-quality joints between tiles & stone. The joints are high chemical, stain & abrasion resistance. Connect & Lock Epoxy Grout doesn't allow water to go through and can be used for filling the tile & stone joints up to 15mm on floor & on wall.</p>
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Technical advantage of Connect & Lock Metapoxy Grout over conventional epoxy grouts

- Advance technology glass beads epoxy grout which requires very short time for mixing and application.
- User friendly 2 component formulation and cleaning can be done in short time with water only.
- Finger touch smooth finish and shiny joints as per gloss of tiles or stone surface.
- Fully flush joints or concavity possible based on application technique.
- Highly suitable for all type of Ceramic, Vitrified & Glass mosaic surfaces.
- Saves time and labor significantly compare to 3 component grouts.
- Highly thixotropic in nature and does not sag from the joint upto 15 mm. or even more.
- Very low VOC (Volatile Organic Compound) and at par with international norms.
- Post application no acid or special cleaner requires to clean the grout surface except normal water.
- Hygiene, antibacterial & does not allow fungal growth by itself.
- Maximum particle size is 250 µm.
- It is able to lock grout colors between joints permanently.
- High quality UV stable colors in 23 shades.
- No stain on grout joints post application in every day use.
- High chemical & stain resistant.
- Almost waterproof by its nature.
- Very high compressive and abrasion resistance.
- Durable and long-lasting.

Suitable areas

- Residential buildings.
- Bathrooms, toilets including public shower.
- Commercial and industrial floors.
- Commercial and industrial Kitchens, restaurants & cafeterias.
- All Type of small & large size swimming pools, water park including sauna's & spas.
- Laboratories & other chemical research facilities.
- Food, Beverages, Pharma & Chemical Industries floors.
- Pubs & Bars

Suitable materials for grouting

- All type & size of glazed, ceramic & vitrified tiles.
- All type & size of natural and engineered stone.
- All type & size of ceramic & glass mosaic.
- Large format tiles of all type including low thickness slabs.
- Tiles & mosaic in metal form.

Suitable coverings to use as an adhesive

- Specially all type of mosaic made in ceramic, glass, stone, metal & wood etc.

Product not to be used

- On rubber surfaces.
- Tiles or stone surfaces which are highly absorbent and may allow the resin or color to penetrate. (Test small area first or consult Walnut technical representative).
- In expansion and connection joints. Also joints which are subjected to extreme movements.
- Not to be used as substitute for sealants.
- On large terraces without provision of adequate expansion and connection joint.
- External high-rise façade with tiles & stone joint with heavy expansion & movement.
- In Joints with standing water and continuous rising moisture.

How to use



Technical Data Sheet

Important tools for application:

- Electric low speed mixing stirrer.
- Vacuum cleaner, brush, broom or blower to remove the dust from joint.
- Walnut rubber grout float.
- Cleaning sponge of good quality & medium density.
- Other mixing & finishing tools such as mixing trowel, water bucket, measuring tape, jar etc.

Cleaning of tools:

While still the material is fresh, all the tools can be cleaned with normal water or soap / detergent. In case material is hardened, it can be removed only by mechanical means.

Surface Preparation:

- First check that tiles or stone are fixed properly and are not sounding hollow. In case sounding hollow, first repair or replace the area.
- Ensure that joints are clean and free from all foreign material such as oil, grease, dust etc. In case dust or cement particles are stuck inside joint, use vacuum cleaner or blower to remove the same. Grout remover tool also can be used in case old grout to be removed.
- In case working in external area under sun, avoid applying grout on hot surface and in joint. First, let cool the surface of tiles or stone and don't work under direct sun. Hot surface may compromise final performance of grout.
- In case surface of tiles or stone are absorbent, then before starting the application, first apply the grout in small test patch area. In case dis-coloration of surface, apply first Zeoseal Porous Sealer or consult Walnut technical representative.
- In case tiles or stone are rustic in nature and having un-even surfaces, it is possible that grout residue may remain on the surface and difficult to fully clean. In this case, better not to apply grout on entire surface area. Also, if needed, edges of tiles or stone can be masked by applying suitable masking tape and can be removed post cleaning of grouts.

Mixing Ratio: Part A-Hardener: Part B-Color resin paste: (1 : 15)

- Mix part A and part B full quantity in any plastic bucket by using slow speed electric stirrer. Mix until smooth & uniform paste is obtained for application.
- In case part quantity of grout is mixed, it is advisable to use strictly the correct ratio of Part A-hardener & Part B-resin color paste (1:15). For taking correct ratio of hardener, a measurement jar or hardener bottle cap can be used. (In case Part A mixing ratio are not correct, the final result may vary and grout performance can be compromised.)
- Use the mixed material within 15 to 45 minutes (Depends on ambient temperature) before it starts setting in bucket.

How to apply & cleaning:

- Before applying the grout on overall surface of tiles or stone, test the small area for any discoloration due to absorbency in tiles or stone surface.
- In case tiles or stone surface is rough or un-even, it is advisable to apply the grout only in the joints and not on the entire surface of tiles or stone to avoid cleaning issue. (A good masking tape also can be used if needed on the edges.)
- Spread the grout evenly on the surface of tiles or stone to cover the area.
- Once grout is spread, fill the joint completely using walnut rubber grout float. Keep the rubber float diagonally to the joint and apply 45-degree angle to have perfect filling.
- Once all the joints are filled properly, remove excess grout if any from the surface of tiles or stone.
- To achieve flush joints, leave the grout approx. 30 to 45 minutes (Depends on temperature) in the joints. (Immediate cleaning of grout is possible, but it may lead to un-even grout surface finish).
- Pour clean water over the tile or stone surface enough to wet the area and start cleaning the grout with medium density sponge in circular motion all over the joints. Finish the joint smoothly and evenly. (Change the water once or twice to have proper cleaning of surface). The sponge cleaning will ensure the grout leaves a smooth and glossy finish at the joints.
- Leave the grout for 24 hrs. to dry and fully set. Protect the area for any possible stain on fresh grout due to movement or dust.
- After 24 hrs. the tile surface can be cleaned with soap water to remove any haze or traces of color remained at the top.

Product & Working Data

- Product appearance : Part A lite yellow hardener & Part B Resin colour paste.
- Colours : 23 premium shades as per Walnut Grout shade card.
- Packing : 1 & 4 kg mono bucket consist of part A-hardener & part B colour paste.
: 4 Kg. (Part A - 250 grm. & Part B 3750 grm.)
: 1 Kg. (Part A - 63 grm. & Part B 937 grm.)
- Shelf life : 24 months from the date of manufacturing.
- Pot life : 45 minutes Approx.
- Mixing ratio : Ideally full quantity to be mixed, In case part quantity to be mixed - ratio: 1:15 (hardener: resin color paste) to be maintained.
- Using alongwith C&L Jewels : upto 3% by weight of epoxy grout or more can be mixed.
- Cleaning time of grout : within 15 to 45 minute depends on finishing needed and ambient temperature.
- Specific weight of the mix : 1.43 kg/dm³
- Using as adhesive : minimum 1.5 to 2mm. thickness for fixing glass mosaic.
- Width of Joint : upto 15 mm.
- Grouting when fixed with adhesive : After 24 hours
- Grouting when fixed with wet mortar : After 14 days
- Foot traffic and lite uses : After 24 hours
- Full strength of grout : At 7 days.
- Coverage : It is based on tile size, joint width & depth. Refer the coverage chart.
- Application temperature : + 5° C. to + 35° C.

(Data @ 23° C. & 50% humidity)

Technical Performances

In compliance with EN RG (Reactive grouts)

- Compressive strength : 53 MPa as per EN 13888
- Abrasion resistance : 180 mm³ as per EN 12808-2
- Water absorption after 240 min. : 0.03g as per EN 12808-5
- Fungal contamination : NIL
- Bacterial contamination : NIL
- Porcelain tiles/concrete tensile strength ≥ : 2.6 Mpa as per EN 1348
- Working temperature : from -40° C to +80° C

(Final results @ 28 days. 23° C. & 50% humidity)

- Final resistance to temperature after 7 days or full cure: - 30 to + 80° C.
- The final results may vary based on temperature and humidity.

Walnut exclusive technology



Technical Data Sheet

Coverage Chart

Coverage's of Connect & Lock Metapoxy Grout - Approx. sq. ft. area covered in 1 kg. of grout.								
Tile size in mm. (W x L x T)	Joint width in mm							
	1	2	3	4	5	6	8	10
20 x 20 x 3 (Glass Mosaic)	23	11						
50*50*3 (glass mosaics)	58	30						
100*100*3	115	58	40	30	23	20	14	10
100*150*3	140	70	47	35	28	23	17	14
200*300*4	210	105	70	50	40	35	25	20
300*300*5	210	105	70	50	40	35	25	20
300*450*6	210	105	70	50	40	35	25	20
450*450*8	200	100	65	50	40	33	25	20
600*450*8	225	113	75	55	45	37	28	22
600*600*8	265	130	90	65	50	45	33	25
900*900*11	290	145	95	70	55	47	35	28
1200*1200*9	470	235	155	115	95	78	58	45
1200*2400*9	625	315	210	155	125	105	75	60

- Actual coverage depends on the grout application and actual depth of grout joint.
- Mixing and application waste reduces the actual coverage of the grout.

STAIN RESISTANCE CHART

Stain material	Concentration	Rating after Immediate cleaning *	Rating after 24 hrs. cleaning*
Coffee	Regular coffee	0	1
Milk Casein	As available	0	0
Mineral Oil	99% above	0	0
Coca-Cola	As available	1	1
Ketch up	As available	1	1
Beer	As available	0	0
Grease	As available	0	0
Red wine	As available	0	0

Rating details:

- | | |
|---|--------------------------|
| 0 - No stain | 1 - Less visible |
| 2 - Moderately visible | 3 - Stain highly visible |
| 4 - Stain not able to clean after application | |

(Stain from 1 to 3 can be fully cleaned using water within 24 hrs. After 24 hrs. suitable detergents or stain cleaner can be used to remove the complete stain).

Technical Data Sheet

CHEMICAL RESISTANCE CHART

Chemical Name	Concentration (%)	CHEMICAL RESISTANCE @exposure period			
		1 hr	24 hrs	48 hrs	Prolonged exposure
Water	As available	3	3	3	3
Vinegar	5%	3	3	3	3
Milk	As available	3	3	3	3
Citric Acid	5%	3	3	2	1
Sodium hypochlorite	5%	3	3	3	3
KOH	45%	3	3	3	3
Petrol	As available	3	3	2	1
HCl	20%	3	3	3	3
Alcohol	10%	3	3	3	3
Oxalic acid	10%	3	3	3	3
Mineral Oil	As available	3	3	3	3
Sulphuric acid	100%	2	1	1	1
Sulphuric acid	50%	3	3	3	3
NaOH	50%	3	3	3	3
Methanol	As available	3	2	1	1
MEK	As available	3	2	1	1
Chloroform	As available	3	2	1	1
Xylene	As available	3	2	1	1
Ammonia	25%	3	2	1	1
Curd	As available	3	3	3	3
Ghee	As available	3	3	3	3
Butter	As available	3	3	3	3
Alcohol 45%	As available	3	3	3	2

Rating index:

1- Poor

2 -Good

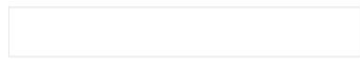
3 - Excellent

- The chart exhibits that 90% of chemicals have excellent stain resistance. However, the chemical which are used in core industrial activity are rated 1 and hence care must be taken.

Important instructions

- In case of very weak or old joints, please ensure that proper strength or corrections are done before use of grouts.
- If temperature is more than 35° C., than avoid using the products under direct sun.
- In case temperature is cold and below 5° C., the initial and final setting may affect.
- In case the performance of Walnut products is not as per technical data mentioned, please call Walnut technical helpline or its nearest representative.
- If applied externally, it is possible that over the time period grout colour may change due to UV rays. Consult Walnut technical helpline or its nearest representative.

Technical Data Sheet



↔ COLORLESS

WHITE SHADE



—+→ PURE WHITE

IVORY SHADE



— → CREAM



—+→ LITE IVORY



— → REAL IVORY

PINK SHADE

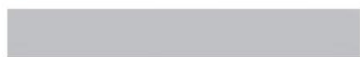


— → REAL PINK



— → MUSHROOM

GREY SHADE



—+→ CLINKER GREY



—+→ CEMENT GREY



—+→ METAL GREY



—+→ SLATE STONE

YELLOW SHADE



— → CAMEL



— → YELLOW JAISALMER

RED SHADE



—+→ BRICK RED



—+→ TERRACOTTA

BROWN SHADE

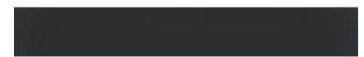


—+→ WALLNUT



—+→ COCOA

BLACK SHADE



—+→ CHARCOAL



—+→ REAL BLACK

BLUE SHADE



— → LITE BLUE



— → MARINE BLUE



— → REAL BLUE

GREEN SHADE



— → PISTACHIO



— → OLIVE

Lite Grout

 Stucco Grout

 C&L Epoxy Grout

 C&L Crystal Grout

All the above shades are indicative. for actual shades & reaction with absorbent tiles or stone, please verify at site.

Walnut Green Building Index

Walnut range of products are most eco-friendly and suitable to use in all kind of buildings including certified green. Apart from using best of international raw material for best performance, Walnut procure the major raw material locally to safeguard environment.



- Recycled Raw Material used.
- VOC (Very low Organic Compounds).
- Suitable for all kind of green and normal buildings.

Technical Data Sheet

Walnut Quality & Safety Assurance

Products supplied are safe to use by any worker at site. However proper tools and safety measures must be in place for prolong working. The gloves, safety glasses and other protection measure must be followed as per local regulation.



Declaration

All the above information and results are provided based on Walnut internal quality test. Customer must check before using the product about performance and final expected results. Walnut cannot be held responsible for any damage of whatsoever nature at site.

Technical Help

Walnut Building Solutions India Private Limited | CIN : U36999MH2017PTC289638

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